

A. SCHMIDT.
 TERMINAL FASTENING.
 APPLICATION FILED FEB. 7, 1910.

976,100.

Patented Nov. 15, 1910.

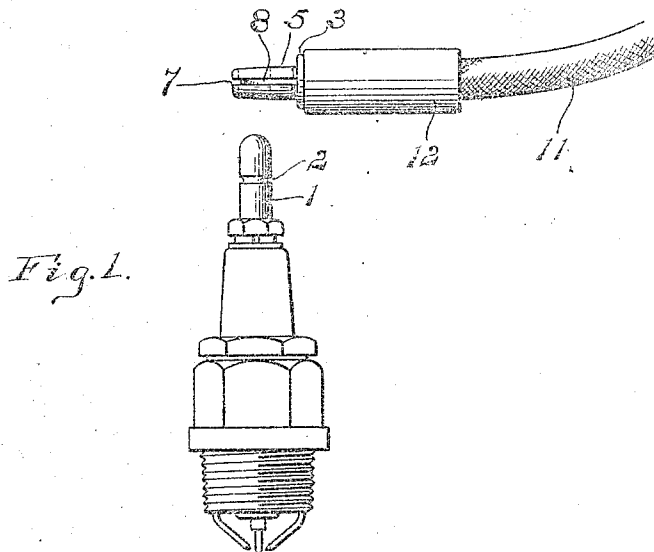


Fig. 1.

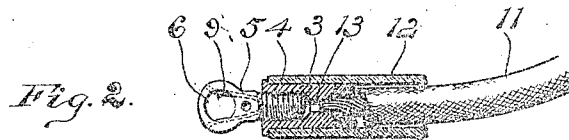


Fig. 2.

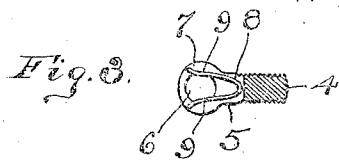


Fig. 3.

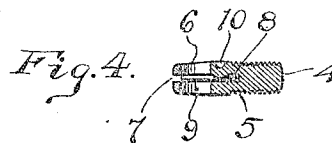


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT SCHMIDT, OF FLINT, MICHIGAN, ASSIGNOR TO CHAMPION IGNITION COMPANY,
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TERMINAL-FASTENING.

976,100.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed February 7, 1910. Serial No. 542,393.

To all whom it may concern:

Be it known that I, ALBERT SCHMIDT, a citizen of the United States of America, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Terminal-Fastening, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a terminal fastening for electrical conductors and its object is to provide a cheap and simple device for the purpose which may be quickly and easily attached and detached from the part to which it is desired to secure the same and which will permit of the rotating of the part relative to the fastening or the turning of the fastening upon said part.

15 The invention consists in the construction as hereinafter more fully described and particularly set forth in the claims reference being had to the accompanying drawing in which,

20 Figure 1 is a side elevation of a spark plug and a terminal fastening embodying the invention shown detached therefrom; Fig. 2 is a sectional view of the terminal fastening; Fig. 3 a detail of the eye bolt showing the same in section; and Fig. 4 is a similar view showing the eye bolt sectioned at right angles to the section shown in Fig. 3.

25 While the terminal embodying the invention is shown as applied to a spark plug, it is not desired to limit the scope of the invention to such application, but it is understood that the fastening may be applied to any device having a terminal post or stem 1 which is provided with an annular groove 2.

30 The fastening consists of a plug 3 provided with an axial bore which is screw-threaded to receive the screwthreaded stem 4 of an eye bolt 5, the eye 6 of which is just large enough to receive the stem 1 of the spark plug which stem is preferably rounded at its upper end to facilitate its insertion in the eye 6. The bolt is split horizontally by sawing inward from the outer end of the eye toward the shank and within this slot 7 is secured a U-shaped spring 8 with the free ends of the spring adjacent to the outer end of the eye and normally lying within the slot with the side portions 9 projecting slightly into the vertical hole in the eye for

the reception of the stem 1. The looped end of this spring is secured within the shank portion of the eye bolt by depressing the metal of the bolt at 10 by means of a punch, downward into the loop. The ends or portions 9 of the spring are free to spring outward to permit the insertion of the stem 1 and when the eye is brought to a point on the stem opposite the groove 2 therein the spring will move into the groove and detachably hold the eye in place on the stem. The spring firmly engages the groove and makes a good electrical connection and at the same time permits the eye bolt to be turned freely upon the stem or the stem to be turned within the eye bolt. The end of the wire conductor 11 is attached to the plug 3 by securing the plug within the end of an insulating sleeve 12, the opposite end of which sleeve forms a socket to receive the end of the wire which is inserted therein and an electrical connection made between the wire and the plug 3 by running solder into the sleeve around the wire and upon the end of the plug. If desired the bore of the plug may be extended therethrough and the end of the wire inserted in the inner end of said bore as shown at 13 in Fig. 2 to further insure a good electrical connection.

35 Having thus fully described my invention what I claim is:—

1. The combination of a terminal stem having a groove, an eye to receive the stem adapted to be attached to an electrical conductor, and a spring secured to the eye and normally projecting into the opening thereof to engage the groove in said stem.

2. The combination of a terminal stem having a groove, an eye bolt adapted to receive the stem, means for attaching the eye bolt to an electrical conductor, and a spring on the eye bolt to engage the groove in the stem and detachably hold the eye bolt in place thereon.

3. The combination of a terminal stem having an annular groove, an eye bolt having an opening to receive the stem and a transverse slot, means for attaching the eye bolt to an electrical conductor, and a spring secured within the slot in the eye bolt to engage the groove in the stem.

4. The combination of a terminal stem having an annular groove, an eye bolt having an opening to receive the stem and having a transverse slot extending inward from

the outer end of the eye of the bolt, a U-shaped spring secured within said slot with its free end portions normally projecting into the opening in the eye to engage the
5 groove in the stem, and means for attaching the eye bolt to an electrical conductor.

5. The combination of a terminal stem having an annular groove, an eye bolt having a screwthreaded shank portion and provided with an opening to receive the stem
10 and a slot extending transversely of the opening from the outer end of the eye

toward the shank portion, a U-shaped spring secured within the slot with its end portions normally projecting into the opening, a plug 15 having an axially screw threaded opening to receive the stem of the eye bolt, and a sleeve within one end of which the plug is secured.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT SCHMIDT.

Witnesses:

S. CHAMPION,

B. DE GUICHARD.